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Columbia River Channel Improvement Study – Ecosystem Restoration

Ecosystem Restoration is a relatively new program for the U.S. Army Corps of Engineers. Engineering Circular 1105-2-210, Ecosystem Restoration in the Civil Works Program, outlines the Corps' authority to include ecosystem restoration projects in their planning studies. The ecosystem restoration proposed in this project is separate from and in addition to the wildlife mitigation actions required for the project.

Because the Corps' primary focus is on restoration of hydrologic dependent systems, the term ecosystem restoration could perhaps be more easily understood as habitat restoration. Corps ecosystem restoration efforts can be independent actions or actions that complement those of other agencies and groups.

The seven Lower Columbia River Ports, sponsors of the ongoing Feasibility Study, have agreed to consider sponsoring the four ecosystem restoration actions described below as part of the channel improvement project. These four ecosystem restoration actions were the result of a series of workshops with federal and state resource agencies, and the public. They were chosen from a long list of potential actions as being the most appropriate to implement concurrently with the channel improvement project. Construction of these actions could be authorized as part of the channel improvement project authorization.

- Shillapoo Lake – This action would involve construction of water supply and control structures for an expanded Shillapoo Wildlife Area, operated by the Washington Department of Fish and Wildlife (WDFW). This would allow WDFW to control water levels on nearly 1,250 acres of Shillapoo Lake to desirable levels for moist soil wetland plant communities and to control reed canarygrass. The area would be managed to provide habitat for wintering waterfowl, shorebirds, raptors, wading birds, and other wildlife. The construction cost of this action is about $3,200,000.

- Tide gate retrofits for salmonid passage – Fish slides would be installed on existing tide gates on Tide and Fertile Valley creeks, and Grizzly Slough in Oregon and Burris Creek and Deep River in Washington. A fish slide is a rectangular slide gate with an opening of about 12 inches by 15 inches that can be manually opened and closed. Eleven tide gates would be retrofitted for about $200,000.

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- Improved embayment circulation – Connecting channels would be constructed at the upstream end of Walker-Lord and Hump-Fisher islands to improve water circulation through the embayments. This would improve water quality and rearing habitat for juvenile salmonids. Construction of the two channels is estimated to be around $20,000.

- Restore shallow water habitat – A pile dike field would be built between Miller Sands and Pillar Rock islands and the area would then be filled to about elevation 6 feet with material from channel maintenance dredging. This would refill an area of about 250 acres that has been eroding for many years. The area would be returned to historic depths and then allowed to naturally reestablish benthic productivity. The Corps will cooperate with the NMFS and the Avian Predation Working Group to address concerns about possible juvenile salmonid predation around the pile dikes. Construction of the pile dike field would cost about $2,800,000. Placement of the fill material would be part of future navigation channel maintenance activities.

Agencies and organizations involved in the identification and selection of these four ecosystem restoration actions included: the U.S. Fish and Wildlife Service; the U.S. Environmental Protection Agency; the National Marine Fisheries Service; the Oregon Dept. of Fish and Wildlife; the Washington Dept. of Fish and Wildlife; the Washington Dept. of Ecology; Columbia River Estuary Study Team (CREST); Washington Trade and Economic Development Office; Sen. Slade Gorton's office; Portland State University; Woodward-Clyde Consultants; Port of Portland; Port of Vancouver; and the Corps.

The above ecosystem projects fit within the scope of the Feasibility Study. The Corps has the additional capacity to investigate and implement both small (less than $5 million) and large-scale restoration projects. The small-scale projects might be doable under the Corps' Water Resources Development Act (WRDA) - Section 1135 continuing authority. Large-scale projects would likely require congressional authorization under the Corps' General Investigation (GI) authority. The Corps would like to know of potential sponsors for the range of projects indicated. Restoration activities are part of the Corps' mission, and such restoration is separate from the Corps' duty to mitigate for damages as a result of other projects. Restoration is not a replacement for mitigation. The cost-sharing formula is 35 percent local/non-federal funding and 65 percent federal funding.